

WORK PERMIT # PH9806003

ILR / Work Order # _____ Dept. RC Construction Job # _____ Tracking # 243 Account # 89195

1. Work requester fills out this section

Requester: J. Collins Date: 6-17-98 Dept/Div/Group: PHENIX
 Other Contact person (if different from requester): _____ Phone No. 7777
 Start Date 6-18-98 Estimated End Date 6-19-98
 Description of Work / Problem: _____

TEST LIFT FIXTURE

Building CPH 832 RHEO BLOCK Room 4AD0 Equipment _____

2. Work requester, work provider, and ES&H (as necessary) jointly fill out this section or attach applicable hazard analysis

Hazard Analysis

RADIATION CONCERNS ☒ NONE ☐ Activation ☐ Airborne ☐ Contamination ☐ Radiation ☐ OTHER _____
☐ Special nuclear materials involved (ES&H 3.7.0), notify Group Leader, Isotope Special Materials Group (SSD)
☐ Fissionable materials involved (ES&H 3.7.0), notify Laboratory Criticality Officer (DAT)

SAFETY CONCERNS ☐ NONE ☐ Corrosive ☐ Flammable ☐ Material Handling ☒ Rigging/Critical Lift
☐ Asbestos ☐ Cryogenic ☐ Fumes/Mist/Dust ☐ Noise ☐ Toxic
☐ Biohazard ☐ Electrical ☐ Heat/Cold Stress ☐ Non-ionizing Radiation ☐ Vacuum
☐ Chemicals ☐ Elevated Work ☐ Hydraulic ☐ Oxygen Deficiency ☐ OTHER _____
☐ Confined Space ☐ Excavation ☐ Lasers ☐ Penetrating Fire Wall
☐ Adding / Removing Walls or Roofs ☐ Lead ☐ Pneumatic

ENVIRONMENTAL CONCERNS

☒ NONE ☐ OTHER _____
☐ Hazardous materials will be released to the air via a new/modified ventilation system, hood, or stack (ES&H 6.1.4 and 6.1.5) Notify Project Engineer, Environmental Protection Office (ES&H Services)
☐ New hazardous materials will be released via the liquid effluent system to the sewage treatment system or an impoundment (ES&H 6.1.2) Notify Regulatory Compliance Engineer, Environmental Protection Office (ES&H Services) for permit.

Waste Generated ☒ NONE ☐ Clean Waste ☐ Hazardous Waste ☐ Radioactive Waste ☐ Mixed Waste
 Waste disposition by: _____

Based on analysis above, the Review Team determines the job hazard category:

JOB HAZARD CATEGORY: ☒ MODERATE ☐ HIGH
 Job Safety Analysis (JSA) Required? ☐ No ☒ Yes (Please attach)

Work Controls

WORK PRACTICES ☐ NONE ☐ Containment ☐ IH Survey ☐ Scaffolding - requires inspection
☐ Back-up Person/Watch ☐ Exhaust Ventilation ☐ Lockout/Tagout ☐ Time Limitation
☐ Barricades ☐ HP Coverage ☐ Posting/Warning Signs ☒ OTHER PROCEDURES

PROTECTIVE EQUIPMENT ☐ NONE ☐ Ear Plugs ☒ Gloves ☐ Lab Coat ☒ Safety Glasses
☐ Coveralls ☐ Ear Muffs ☐ Goggles ☐ Respirator ☐ Safety Harness
☐ Disposable Clothing ☐ Face Shield ☒ Hard Hat ☐ Rubbers ☒ Safety Shoes ☐ OTHER _____

PERMITS REQUIRED Initial next to box to show who has responsibility to generate the permit
☐ Confined Space Entry (ES&H 2.2.4) ☐ Digging/Core Drilling (ES&H 1.18.0) ☐ Impair Fire Protection Sys. (ES&H 4.2.0)
☐ Cutting/Welding (ES&H 4.3.0) ☐ Electrical Working Hot (ES&H 1.5.0) ☐ Rad Work Permit (BNL RadCon Manual)
☐ Dept/Div Specific Permit _____ ☐ Dept/Div Specific Permit _____

DOSIMETRY/ MONITORING ☒ NONE ☐ O₂/Combustible Gas ☐ Self-reading Dosimeter
☐ Heat Stress Monitor ☐ Passive Vapor Monitor ☐ Sorbent Tube/Filter Pump
☐ Noise Survey/Dosimeter ☐ Real Time Monitor ☐ TLD ☐ OTHER _____

Training Requirements (List below any location specific training requirements)

3. Both work requester and work provider coordinate on work plan (use attachments for detailed plans)

Work Plan (procedures, timing, personnel, etc.):

Rigging According To Plan.

Load Test Procedure FSU-RP-P06

Special Working Conditions Required:

Operational Limits Imposed:

Post Work Testing Required:

Reviewed By: *Note: Primary facility reviewer will dictate the other required signatures

Title	Name (print)	Signature	Life #	Date
Primary Reviewer	J. Collins	[Signature]	14795	6-19-98
ES&H Services	STEVE KANE	[Signature]	19894	6-19-98
Other *				

4. Job site personnel fills out this section

Note: Signature indicates personnel performing work have read and understand the hazards and permit requirements

Job Site Supervisor	Contractor Supervisor
[Signature]	
Workers:	Workers:
[Signature] Life # 9126	
[Signature] Life # 18213	
[Signature] Life # 12508	

5. Work Requester or designee fills out this section

Conditions are Appropriate to Start Work: (Work permit has been reviewed, work controls are in place, and site is ready for job.)

Name J. Collins Signature [Signature] Life # 14795 Date 6-19-98

6. Work Requester determines if Post Job Review is required

☒ YES ☐ NO

Post Job Review by ES&H Coordinator: Name Initial Life #: Date:

Other Closeout Signatures (as necessary): Life #: Date:

Other Closeout Signatures (as necessary): Life #: Date:

7. Worker provides feedback

Worker Feedback:

Supervisor: Is worker feedback required on this job? ☐ NO ☐ YES (attach feedback form)

Worker: Any feedback on safety concerns or on ways to improve the job? ☐ NO ☐ YES (ask for form if not attached)

FLORIDA STATE UNIVERSITY
NUCLEAR PHYSICS DEPARTMENT

RICH PROJECT
GAS VESSEL LIFTING FIXTURE
LOAD TEST PROCEDURE
FSU-RP-P06

Florida State University
Tallahassee, FL 32306
(850) 644-4100

GAS VESSEL LIFTING FIXTURE: LOAD TEST PROCEDURE

CONTENT

- I. INTRODUCTION**
- II. SCOPE**
- III. RESPONSIBILITIES**
- IV. PER-TEST PROCEDURE**
- V. TEST PROCEDURE**

Reference Documents

Princeton Engineering Group
Selected Component Evaluation for Lifting Fixture analyses
Host Rings
Ref Drawings: 0020207019..
Weld Inspection Sheet.

I. INTRODUCTION

This procedure is for the safe handling of the Rich Lifting Fixture.

While load testing. It will eliminate danger to workers at Brookhaven National Laboratory (BNL)

II. SCOPE

This procedure gives the minimum requirements for load testing the Rich Lifting Fixture to 150% of its capacity. It applies to BNL personnel, outside contractors, contract labor and to personnel designated to operate equipment covered by this procedure.

III. RESPONSIBILITY

Florida State University (FSU): A qualified representative of FSU will be on site as a consultant during the following operations

Brook Haven National Lab (BNL): will provide appropriate personnel for hoisting, rigging, crane operation, line supervision, and the appropriate equipment with verifications for the following operation:

Equipment Required:

- Crane hook rated for 50,000-lb. min
- Four 12' long slings rated for 25,000-lb min.
- Four 6' long slings rated for 25,000 lb min.
- By FSU. Hardware to connect slings to crane hook. (See attach specifications hoist rings).
- 8 Shackles rated 25,000 min
- One Spreader bar rated for 50,000 lb min
- By FSU. Rich lifting fixture DWG 0020207019
- Concrete blocks for load test (4 block 10,000 lbs each).

PER-TEST PROCEDURE

1. Check torque values on all host ring bolts (230 Ft lbs)
2. Check all bolts on fixture are tightened.
3. Visually inspect all welds.
4. Set up safety cones or barriers around lift test site.

TEST PROCEDURE

1. Set lift fixture and block in lift test area (FIG 1).
2. Attach short slings to fixture host rings and block attachment points.
3. Attach crane hook to spreader bar
4. Attach long slings and shackles to spreader bar.
5. Move crane hook and spreader bar into position over lift fixture and attach slings to host rings at the four lifting points on lifting fixture (FIG 2).
6. Begin lift test, raise crane hook. Till load is clear of ground.
7. Hold for five minutes
8. Lower load and fixture to the ground
9. Remove shackles, short slings from pivot end of fixture and spreader bar (FIG 2).
10. Reposition spreader bar for 45' load test (FIG 3).
11. Lift load to 45' and hold for 5 minutes (FIG 4).
12. Remove all rigging, load test is complete.

FIG 1

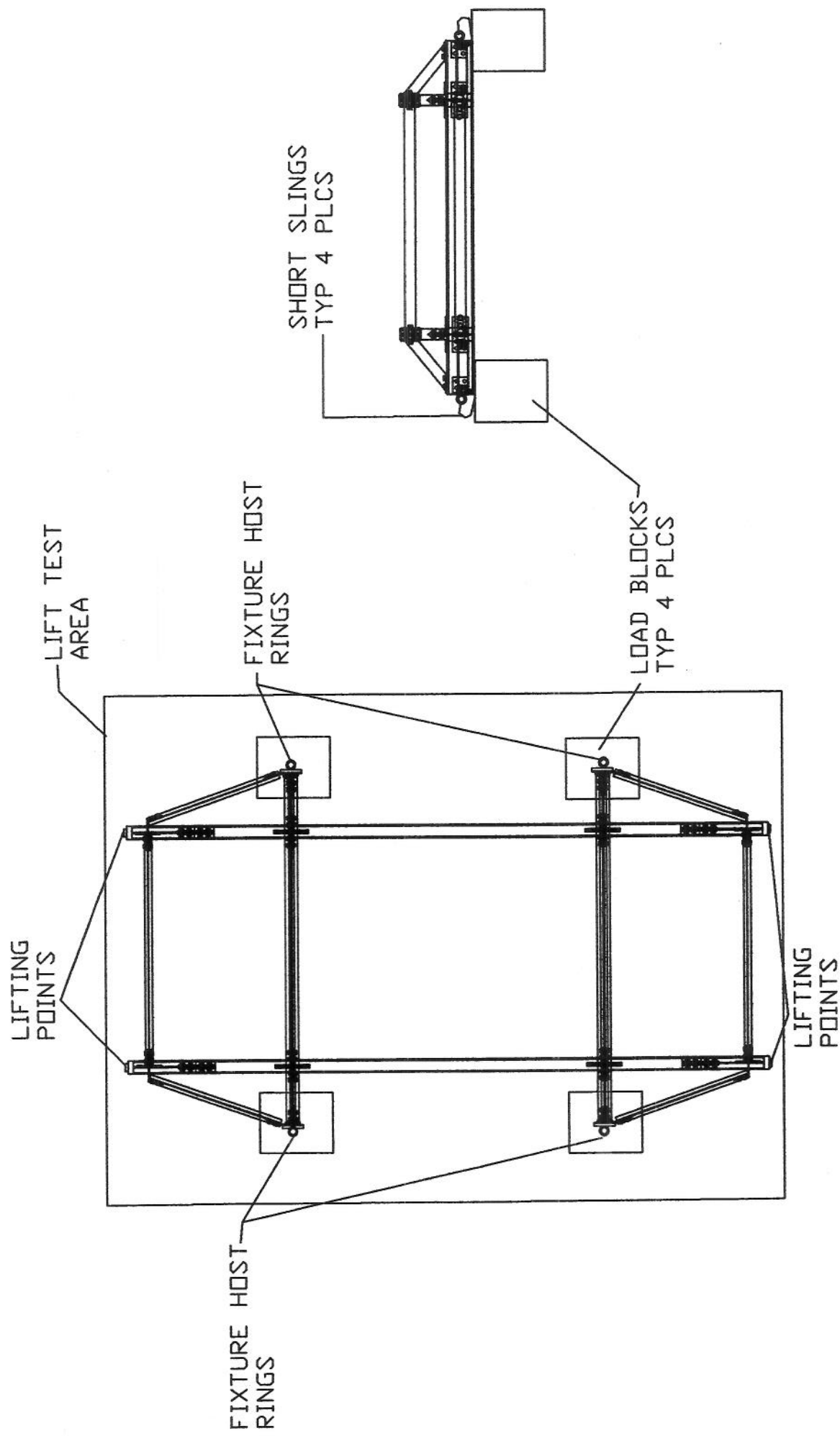
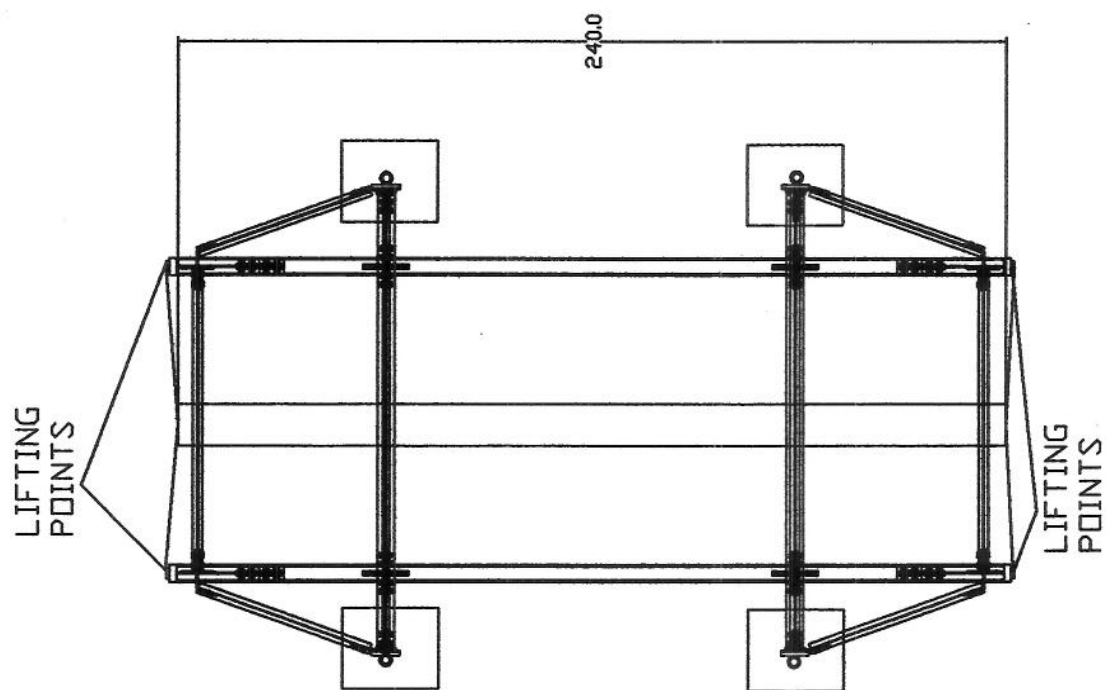
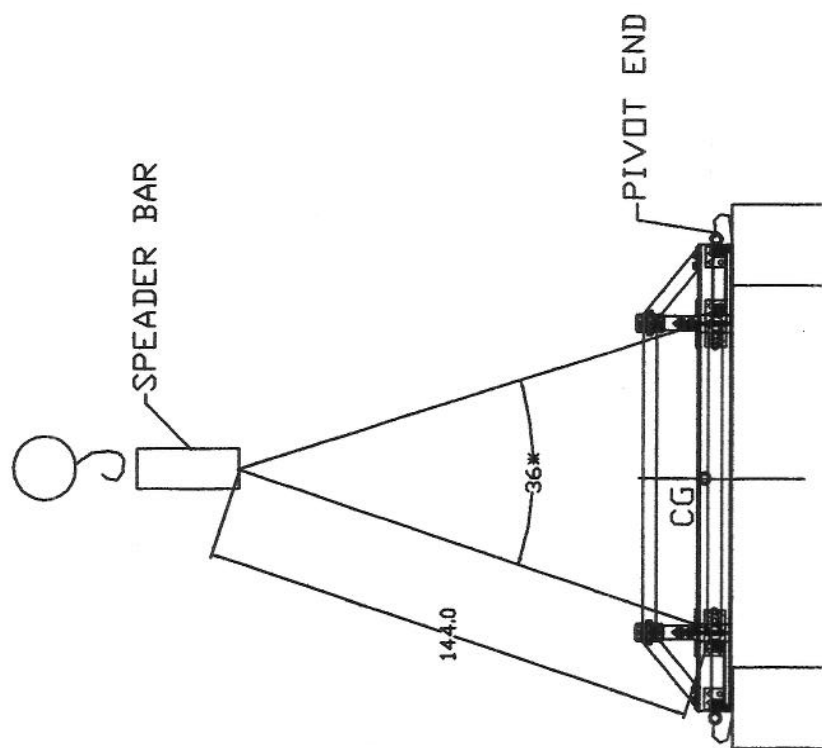


FIG 2



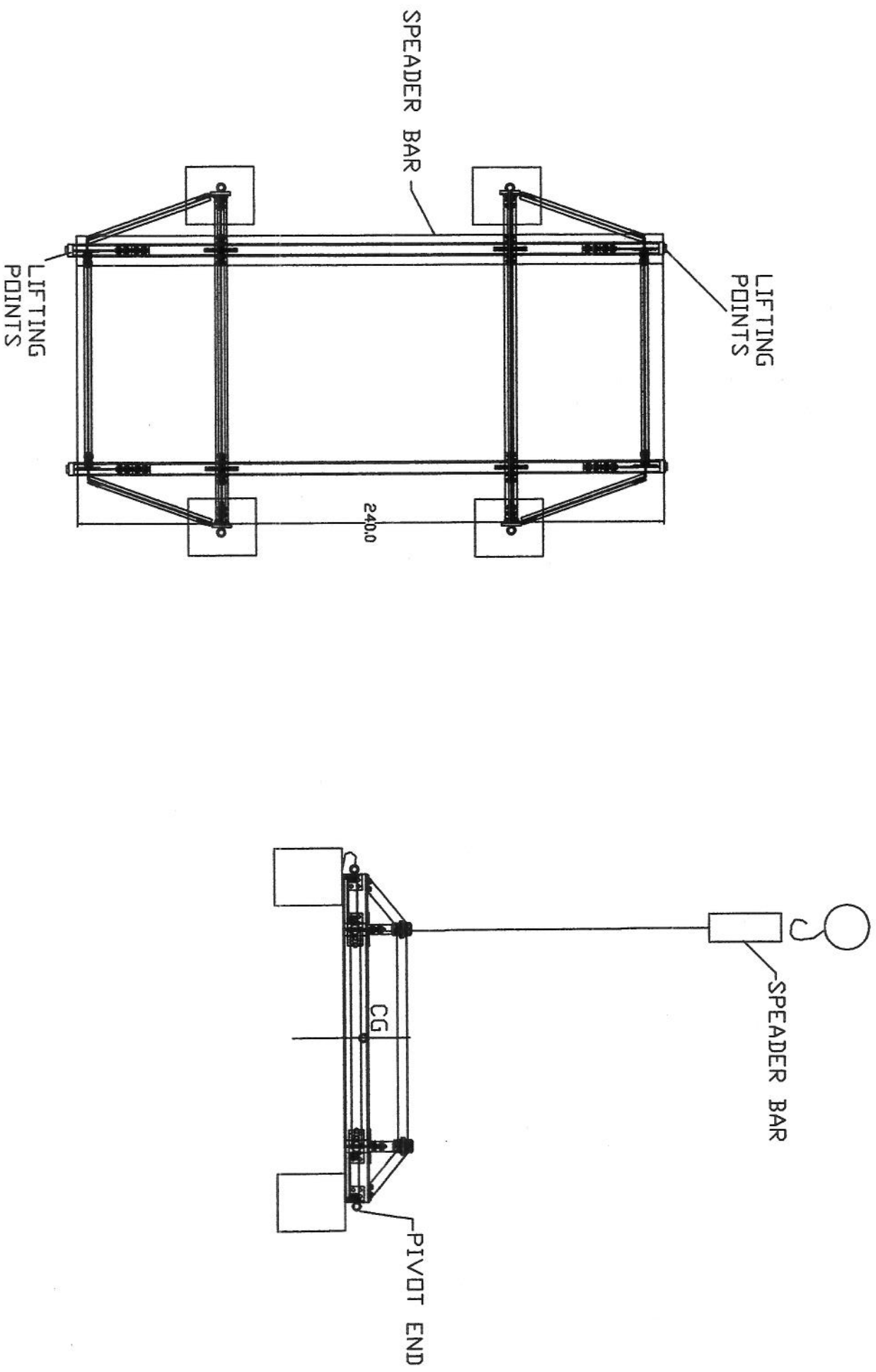


FIG 4

